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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/029,099

10/19/2001

Michael Alan Maiers

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11/12/2002

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EXAMINER

GILMAN, ALEXANDER

ART UNIT

PAPER NUMBER

2833

DATE MAILED: 11/12/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/029,099

Applicant(s)

MAIERS ET AL.

Examiner

Alexander Gilman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 September 2002.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-14 and 16-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-14 and 16-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____. 6) ☐ Other: _____

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DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 19 is rejected under 35 U.S.C. 102(b) as being anticipated by Baxter et al.

Baxter et al (US 5,881,454) disclose a disc drive comprising:

a base plate (14) ;

a PCBA (12) attached to the bottom surface of the base plate;

an electrical connector (10) including a plurality of data pins (48);

means for aligning (64, 18, 22) the electrical connector with direct reference to the base plate.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1, 2, 4-8, 10-14, 17, 18, 20, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baxter et al in view of Jabbari et al.

With regard to claims 1, 2, 7, 8, 10 and 11, Baxter et al (US 5,881,454) disclose a disc drive comprising:

a top cover;

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a base plate (14), the base plate having threaded openings (18) in the base ;
a PCBA (12) attached to the bottom surface of the base plate, the PCBA having oversized holes (24) ,
see Fig. 2) through which fasteners extend to threadably engage the threaded openings;
an electrical connector (10) including a plurality of data pins (48).

Baxter et al do not disclose

- a plurality of guide pins protruding from the electrical connector;
- a plurality of openings defined in the bottom surface of the base plate.

Jabbari et al (US 5,541,787) disclose (Fig. 4)

- a chamfered plurality of guide pins (72) protruding from the electrical connector;
- a plurality of openings (76) defined in the bottom surface of the base plate.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the Baxter disc drive with a pluralities of guide pins and an openings, as taught by Jabbari et al, to accurately locate the connector (Jabbari et al, col. 5, lines 37-38).

With regard to claims 4-6, Baxter et al when modified by Jabbari et al disclose (Baxter et al) the base plate is formed from cast aluminum (col. 3, line 57) and the electrical connector formed from a molded plastic.

Baxter et al when modified with Jabbari et al do not specify the method of manufacturing the respective opening and pin.

To make the opening as a cast feature or being machined into the base plate and produce the pin as an integral molded with the connector body would have been an obvious matter of design lacking criticality since the above mentioned methods of manufacturing the respective opening and pin are the standard methods and since the function performed by the respective elements is the same.

With regard to claims 12-14, 17, and 18, Baxter et al when modified by Jabbari et al disclose the disc drive, which is assembled using the steps claimed.

With regard to claim 20, Baxter et al when modified by Jabbari et al disclose all of the limitations including that the means for aligning (Jabbari et al : pluralities of guide pins and openings in the bottom surface of the base plate) are separate from the means for securing PCB to the base plate(Baxter et al - the

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plurality of the threaded openings (18) in the base, the plurality of the mounting holes (24) in the PCBA corresponding to the openings (18) and the plurality of the fasteners (22).

With regard to claim 21, Baxter et al when modified by Jabbari et al disclose (Baxter et al) all of the limitations including (Fig. 4)

2. Claims 9 and 16 rejected under 35 U.S.C. 103(a) as being unpatentable over Baxter et al in view of Jabbari et al, as applied to claims 1, 2, 6-8, and 12-14 above, and further in view of Cox.

With regard to claim 9, Baxter et al when modified by Jabbari et al disclose except for explicitly showing that the spindle motor connector engaging contact pads on the PCBA.

Cox (US 6,091,572) disclose (Fig. 2) the spindle motor connector (160; 162) engaging contact pads on the PCBA (132).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the Baxter-Jabbari et al disc drive with the spindle motor connector engaging contact pads on the PCBA, as taught by Cox, as an alternative interconnection between the respective components.

With regard to claim 16, Baxter et al, when modified by Jabbari et al and Cox, disclose the disc drive which is assembled using the steps claimed.

Response to Arguments

Applicant's arguments filed 09/03/2002 have been fully considered but they are not persuasive.

With regard to claim 19, Applicants argue that the prior art (Baxter et al) does not disclose means for aligning (64, 18, 22) the electrical connector with direct reference to the base plate.

As it was shown in this Action, Baxter (Fig. 4) disclose means for aligning (64, 18, 22) the electrical connector with direct reference to the base plate – the configuration of the aligning ears 64 clearly indicates that the connector being aligned regarding the base plate (14).

With regard to claims 1,9, and 12, Applicants argue that the prior art (Baxter et al, when modified by Jabbari et al) does not disclose the PCBA having oversized holes.

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As it was shown in this Action, Baxter (Fig. 2) disclose the oversized holes (24) – it is clear the holes 24 have ellipsoid like configuration with intention to align the PCBA with regard to the base plate.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexander Gilman whose telephone number is (703) 305-0847. The examiner can normally be reached on Monday-Friday, 10:30 a.m. - 8:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paula A. Bradley can be reached on (703) 308-2319. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-7724 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4900.

AG
November 5, 2002


P. AUSTIN BRADLEY
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